Beta Chem Site, B783 Chemical Container Removal Process

- 1. Upon entering the Beta Chem laboratory ("Site"), take a video (without audio) of the current condition of the Site.
- 2. Inventory chemicals by location at the Site. Print the name of the chemical, estimated quantity of contents (mass in grams of solids, volume in milliliters of liquids), condition of the container (unopened/unused, empty, legible label, crystal formation, any unusual characteristics like multi-phase, cracked lid, hand written label, etc.)
- 3. Screen all containers for radioactive contamination by taking a swipe sample for analysis on a Ludlum Model 3030 Alpha/Beta Counter. To confirm, screening data of 10% of swipe samples will be submitted for laboratory analysis of carbon-14 for verification. Lids, handles, bases and necks of the containers will primarily be evaluated, as these areas are most likely to be contaminated. Any container found to have contamination at or above twice background will be segregated for further evaluation and possible decontamination (wipe down) and retesting.
- 4. Both radioactively contaminated and radioactively uncontaminated containers will be further segregated by DOT hazard class and from any other known incompatibility. For example, acids will be separated from bases, organic acids separated from mineral acids, compressed gases separated from solids and liquids and by hazard subgroup (flammable, toxic, oxidizing, compressed).
- 5. Containers of non-hazardous substances and equipment at the Site will be assessed for radioactive contamination (see #3 above for screening process).
- 6. Unopened containers of hazardous substances and containers of hazardous substances in good condition that can be decontaminated will be evaluated for their "re-sale" value to offset the costs of the chemical and radiological assessment and cleanup.
- 7. Radioactive contamination inside uncontaminated/decontaminated chemical containers will be evaluated by pouring a small amount of the material into a foil weighing boat and placing the foil boat into the Ludlum Model 3030 Alpha/Beta counter. If the test material is measured at or above twice background radiation it will be considered contaminated and may require further evaluation for disposal.
- 8. The safe processing of chemical containers is the first priority at the site. After the chemical containers at the Site are evaluated, interior surfaces of the structure as well as equipment inside the building will be evaluated for radioactive contamination.